

AUTHOR INDEX

- Agostoni, E., see Zocchi, L., 347
- Bebout, D.E., see Chugh, D.K., 147
- Bellemare, F., see D'Angelo, E., 275
- Berger, P.J., Soust, M., Smolich, J.J. and Walker, A.M., Respiratory muscle blood flow in the fetal lamb during apnoea and breathing, 111
- Birks, E.K., Mathieu-Costello, O., Fu, Z., Tyler, W.S. and West, J.B., Comparative aspects of the strength of pulmonary capillaries in rabbit, dog, and horse, 235
- Bonora, M., see Gautier, H., 79
- Butler, P.J., see Smale, K., 293
- Carretelli, P., see Grassi, B., 323
- Chugh, D.K., Katayama, M., Mokashi, A., Bebout, D.E., Ray, D.K. and Lahiri, S., Nitric oxide-related inhibition of carotid chemosensory nerve activity in the cat, 147
- Clark Jr., W.R., see Nieman, G.F., 1
- Costa, M., see Grassi, B., 323
- Crisswell, D.S., see Lawler, J.M., 263
- D'Angelo, E., Prandi, E. and Bellemare, F., Mechanics of the abdominal muscles in rabbits and dogs, 275
- Decramer, M., see Han, J.-N., 13
- De Troyer, A. and Farkas, G.A., Contribution of the rib cage inspiratory muscles to breathing in baboons, 135
- Di Giulio, C., see Mokashi, A., 25
- Doi, K., see Uchida, K., 213
- Dreshaj, I.A., see Martin, R.J., 93
- Durand, J. and Marmy, N., Arachidonic acid induces $[Ca^{2+}]$ oscillations in smooth muscle cells from human airways, 249
- Duvivier, C., see Peslin, R., 199
- Erlachman, J.S. and Leiter, J.C., Central chemoreceptor stimulus in the terrestrial, pulmonate snail, *Helix aspersa*, 247
- Farkas, G.A., see De Troyer, A., 135
- Ferretti, G., see Grassi, B., 323
- Ferrigno, M., see Grassi, B., 323
- Fonseca-Costa, A., see Zin, W.A., 189
- Fu, Z., see Birks, E.K., 235
- Gallagher, C.G., see Syabbalo, N.C., 175
- Gallina, C., see Peslin, R., 199
- Gautier, H. and Bonora, M., Ventilatory and metabolic responses to cold and CO-induced hypoxia in awake rats, 79
- Gayan-Ramirez, G., see Han, J.-N., 13
- Gonzalez, N.C., see Kuwahira, I., 309
- Grassi, B., Ferretti, G., Costa, M., Ferrigno, M., Panzacchi, A., Lundgren, C.E.G., Marconi, C. and Carretelli, P., Ventilatory responses to hypercapnia and hypoxia in elite breath-hold divers, 323
- Han, J.-N., Gayan-Ramirez, G., Megirian, D. and Decramer, M., Contribution of the parasternal intercostals to inspiratory rib elevation in dogs, 13
- Harf, A., see Lorino, A.M., 123
- Hatanaka, K., see Katayama, Y., 301
- Haxhiu, M.A., see Martin, R.J., 93
- Hayashi, T., see Katayama, Y., 301
- Iwamoto, J., Pendergast, D.R., Suzuki, H. and Krasney, J.A., Effect of graded exercise on nitric oxide in expired air in humans, 333
- Katayama, M., see Chugh, D.K., 147
- Katayama, Y., Hatanaka, K., Hayashi, T., Onoda, K., Yada, I., Namikawa, S., Yuasa, H., Kusagawa, M., Maruyama, K. and Kitabatake, M., Effects of inhaled nitric oxide in rats with chemically induced pulmonary hypertension, 301
- Kitabatake, M., see Katayama, Y., 301
- Krasney, J.A., see Iwamoto, J., 333
- Krishnan, B., see Syabbalo, N.C., 175

- Kusagawa, M., see Katayama, Y., 301
- Kuwahira, I., Moue, Y., Ohta, Y., Mori, H. and Gonzalez, N.C., Distribution of pulmonary blood flow in conscious resting rats, 309
- Lagneaux, D., Ventilatory responses to brief hypoxic stimuli after simulated altitude exposure in rat, 157
- Lahiri, S., see Chugh, D.K., 147
- Lahiri, S., see Mokashi, A., 25
- Lawler, J.M., Powers, S.K. and Criswell, D.S., Gender differences in diaphragmatic metabolic properties of the adult Sprague-Dawley rat, 263
- Leiter, J.C., see Erlichman, J.S., 247
- Li, A., see Nattie, E.E., 63
- Lorino, A.M., Lorino, H. and Harf, A., A synthesis of the Otis, Mead, and Mount mechanical respiratory models, 123
- Lorino, H., see Lorino, A.M., 123
- Lundgren, C.E.G., see Grassi, B., 323
- Macron, J.-M., see Wallois, F., 47
- Marconi, C., see Grassi, B., 323
- Marmy, N., see Durand, J., 249
- Martin, R.J., Dreshaj, I.A., Miller, M.J. and Haxhiu, M.A., Hypoglossal and phrenic responses to central respiratory inhibition in piglets, 93
- Maruyama, K., see Katayama, Y., 301
- Mathieu-Costello, O., see Birks, E.K., 235
- Matsuoka, T., see Mortola, J.P., 225
- Megirian, D., see Han, J.-N., 13
- Miller, M.J., see Martin, R.J., 93
- Mokashi, A., see Chugh, D.K., 147
- Mokashi, A., Di Giulio, C., Morelli, L. and Lahiri, S., Chronic hyperoxic effects on cat carotid body catecholamines and structure, 25
- Morelli, L., see Mokashi, A., 25
- Mori, H., see Kuwahira, I., 309
- Mortola, J.P., Matsuoka, T., Saiki, C. and Naso, L., Metabolism and ventilation in hypoxic rats: effect of body mass, 225
- Moue, Y., see Kuwahira, I., 309
- Namikawa, S., see Katayama, Y., 301
- Naso, L., see Mortola, J.P., 225
- Nattie, E.E. and Li, A., Retrotrapezoid nucleus lesions decrease phrenic activity and CO₂ sensitivity in rats, 63
- Nieman, G.F. and Clark Jr., W.R., Effects of wood and cotton smoke on the surface properties of pulmonary surfactant, 1
- Ohta, Y., see Kuwahira, I., 309
- Onoda, K., see Katayama, Y., 301
- Panzacchi, A., see Grassi, B., 323
- Paulev, P.-E., see Pokorski, M., 33
- Pendergast, D.R., see Iwamoto, J., 333
- Pereira, H.S., see Zin, W.A., 189
- Peslin, R., Gallina, C., Saunier, C. and Duvivier, C., Two-frequency analysis of respiratory mechanics in artificially ventilated rabbits, 199
- Pokorski, M., Paulev, P.-E. and Szereda-Przestaszewska, M., Endogenous benzodiazepine system and regulation of respiration in the cat, 33
- Powers, S.K., see Lawler, J.M., 263
- Prandi, E., see D'Angelo, E., 275
- Ray, D.K., see Chugh, D.K., 147
- Rocco, P.R.M., see Zin, W.A., 189
- Saiki, C., see Mortola, J.P., 225
- Sasaki, T., see Yamada, K., 105
- Sato, M., see Yamada, K., 105
- Saunier, C., see Peslin, R., 199
- Shimura, S., see Yamada, K., 105
- Smale, K. and Butler, P.J., Temperature and pH effects on the oxygen equilibrium curve of the thoroughbred horse, 293
- Smolich, J.J., see Berger, P.J., 111
- Soust, M., see Berger, P.J., 111
- Suzuki, H., see Iwamoto, J., 333
- Syabbalo, N.C., Krishnan, B., Zintel, T. and Gallagher, C.G., Differential ventilatory control during constant work rate and incremental exercise, 175
- Szereda-Przestaszewska, M., see Pokorski, M., 33
- Takishima, T., see Yamada, K., 105
- Tyler, W.S., see Birks, E.K., 235
- Uchida, K. and Doi, K., Glycolysis vs. respiration as ATP source for the shape of quiescent cardiomyocytes, 213
- Walker, A.M., see Berger, P.J., 111
- Wallois, F. and Macron, J.-M., Nasal air puff

- stimulations and laryngeal, thoracic and abdominal muscle activities, 47
- West, J.B., see Birks, E.K., 235
- Yada, I., see Katayama, Y., 301
- Yamada, K., Shimura, S., Satoh, M., Sasaki, T., Yamauchi, K. and Takishima, T., HMT regulates histamine-induced Cl^- secretion across the canine tracheal epithelium, 105
- Yamauchi, K., see Yamada, K., 105
- Yuasa, H., see Katayama, Y., 301
- Zin, W.A., Rocco, P.R.M., Pereira, H.S. and Fonseca-Costa, A., Effect of salicylate on respiratory mechanics and postinspiratory muscle pressure, 189
- Zintel, T., see Syabbalo, N.C., 175
- Zocchi, L. and Agostoni, E., Effects of β -adrenergic blockade or stimulation on net rate of hydrothorax absorption, 347

SUBJECT INDEX

- Absorption
 - liquid, hydrothorax, 347
- Adrenoceptors
 - liquid resorption, hydrothorax, 347
- Airways
 - bronchial smooth muscle, signal transduction, 249
 - nasal mucosa, 47
 - trachea, Cl^- secretion, 105
- Blood
 - O_2 transport, horse, comparative, 293
- Blood flow
 - pulmonary, distribution, 309
 - respiratory muscles, 111
- Blood-gas barrier
 - stress failure, 235
- Body mass
 - hypoxia, metabolism, ventilation, 225
- Body temperature
 - hypoxia, 79
- Bohr effect
 - blood, horse, 293
- breathing pattern, 189
- Ca^{2+}
 - bronchial smooth muscle, arachidonic acid, 249
- Capillaries
 - pulmonary, wall stress, 235
- Carbon monoxide
 - thermoregulation, 79
- Cardiomyocytes
 - isolated, shape, 213
- Carotid body
 - blunted hypoxic response, 157
 - chronic hypoxia, loss of chemosensitivity, 25
- Chemoreceptors
 - blunted hypoxic response, 157
 - carotid body, chronic hypoxia, 25
 - central, retrotrapezoid nucleus, 63
- Chemosensitivity
 - central development, 93
 - ventrolateral medulla, 63
- Chest wall
 - mechanics abdominal muscle stimulation, 275
- Clearance
 - lung, NO, 333
- Control of breathing
 - blunted hypoxic response, 157
 - breathing pattern, salicylate, 189
 - carotid body, chronic hypoxia, 25
 - endogenous NO, 147
 - central chemosensitivity, 63
 - central output, apnea, 93
 - exercise, 175
 - hypoxic, hypercapnic response, elite divers, 323
 - ventilatory depression, benzodiazepine, 33
- Cost of breathing
 - respiratory muscles, 111
- Development
 - fetal breathing, 111
 - neonatal apnea, 93
 - post weaning metabolism, ventilation, hypoxia, 225
- Diving
 - hypoxic, hypercapnic response, 323
- Edema
 - pulmonary, 235
- Elastance
 - respiratory, frequency dependence, 199
- Epithelium
 - tracheal, Cl^- secretion, 105
- Exercise
 - maximal, constant vs incremental, 175
 - pulmonary hemorrhage, 235
 - vs spontaneous hyperventilation, exhaled NO, 333
- Fetal breathing
 - blood flow, respiratory muscle, 111

- Gender
 - differences, muscles, insulin, 263
- Glycolysis
 - cardiac myocytes, 213
- Gravitation
 - pulmonary blood flow distribution, 309
- Heterogeneity
 - pulmonary blood flow, 309
- Hydrothorax
 - resorption, beta-adrenoceptors, 347
- Hypercapnia
 - sensitivity, elite divers, 323
- Hypertension
 - pulmonary, monocrotaline, NO, 301
- Hyperventilation
 - spontaneous, vs exercise, exhaled NO, 333
- Hypoxia
 - acclimation, blunted response, central vs peripheral, 157
 - central ventilatory depression, 33
 - chronic, carotid body, loss of chemosensitivity, 25
 - post weaning, 225
 - sensitivity, elite divers, 323
 - thermoregulation, 79
- Impedance
 - respiratory, frequency dependence, 199
- Insulin
 - resistance, gender differences, 263
- Ions transport
 - Cl⁻ secretion, tracheal epithelium, 105
 - Na⁺, pleura, 347
- Larynx
 - air puff stimulation, 47
- Mammals
 - baboon, 135
 - cat, 25, 33, 47, 147
 - dog, 1, 13, 105, 189, 235, 275
 - horse, 235
 - Thoroughbred vs Hanoverian, 293
 - humans, 175, 249, 323, 333
 - lamb, 111
 - piglets, 93
 - rabbit, 199, 235, 275, 347
 - rat, 63, 79, 157, 213, 225, 263, 301, 309
- Maturation
 - see Development, 93
- Mechanics of breathing
 - chest wall, abdominal muscles, 275
 - chest wall movement, 13
 - resistance, elastance, salicylate, 189
 - rib cage muscles, inspiration, 135
 - surfactant, smoke components, 1
 - viscoelastic lung model, 123
- Mediators
 - histamine, histamine *N*-methyltransferase, 105
 - histamine, mechanics of breathing, 199
 - NO, 147, 301
 - exhaled air, 333
- Metabolism
 - hypoxia, post weaning, 225
- Metabolites
 - arachidonic acid, bronchial smooth muscle, 249
- Models
 - viscoelastic lung, 123
- Muscle, *see also* Respiratory muscles
 - inspiratory rib cage, normal breathing, 135
 - protein content, gender differences, 263
- Nitric oxide
 - signal transduction, 147
- Obstruction
 - upper airways, central apnea, 93
- Occlusion
 - airways, pressure response, 123
- Pattern of breathing
 - maximal exercise, constant vs incremental, 175
 - salicylate, 189
- Pharmacological agents
 - 2,4-DNP, 213
 - cyanide, 157
 - domperidone, 157
 - dopamine, 157
 - NOS inhibitors, 147
 - flumazenil, 33
 - L-arginine, 147
 - L-NAME, 147
 - L-NMMA, 147
 - NaCN, 213
 - nadolol, 347
 - propranolol, 347
 - salicylate, 189
 - SKF 91488, 105
 - SNP, 147
 - terbutaline, 347

- Pleural liquid
 - protein concentration, 347
- Pressure
 - esophageal, 47
- Pulmonary capillaries
 - stress failure (3 mammals), 235
- Pulmonary vascular pressure
 - stress failure, 235
- Receptors
 - benzodiazepine, 33
- Respiratory muscles
 - abdominal, chest wall mechanics, 275
 - air puff stimulation nasal mucosa, 47
 - blood flow, fetal lamb, 111
 - parasternal intercostals, 13
- Rib cage
 - displacement, parasternal intercostals, 13
- Signal transduction
 - bronchial smooth muscle, 249
 - carotid body, NO, 147
- Single breath
 - volume response, 123
- Sneeze
 - air puff stimulation, 47
- Surfactant
 - smoke components, 1
- Thermoregulation
 - hypoxia, ambient vs CO-induced, 79
- Transmitter
 - carotid body, chronic hypoxia, 25
- Upper airways
 - obstruction, central apnea, 93
- Vasoactive substances
 - NO, pulmonary hypertension, 301
- Ventilation
 - depression, benzodiazepine, 33
 - hypoxia, post weaning, 225
- Ventilatory response
 - hypoxia, hypercapnia, blunted, elite divers, 323
- Viscoelasticity
 - tissue, respiratory system, 199

